

## ABSTRACT OF THE DISCLOSURE

A system and method for sampling and holding a signal. The invention  
5 includes a novel input circuit for a track and hold circuit comprising a circuit Q1 for  
receiving an input signal including an input node, a first output node N1, and a path  
connecting the input and output nodes; a current switching circuit for applying a first  
current to the node N1 during a first mode of operation but not during a second mode;  
and a current source for applying a second current to the node N1 during both of the first  
10 and second modes. The value of the first current is determined such that the total  
current in the path is constant during the first and second modes. In an illustrative  
embodiment, the first mode is a track mode and the second mode is a hold mode.